

**DEVICES AND METHODS FOR PROTECTING WINDINGS AROUND A  
SHARP EDGED CORE**

**Abstract**

5 <sup>175</sup><sub>42</sub> Electromagnetic devices are provided including an electrically conductive core  
having an inner diameter defining an opening therethrough and an outer diameter, the  
core having sharp edges extending circumferentially around the inner diameter and  
around the outer diameter thereof. A plurality of polymeric protection members are  
wrapped circumferentially around the core and positioned adjacent the sharp edges of  
the core. The protection members have a short leg positioned adjacent an end of the  
10 core. The short leg may have a length selected to provide a substantially flat surface  
on the end of the core when the protection members are wrapped around the core. In  
various embodiments, an adhesive layer may be provided between the protection  
members and the core. A coated wire is wrapped around the core so as to be  
magnetically coupled thereto and around the polymeric protection members so as to  
15 be displaced from the sharp edges of the core. Polymeric protection members and  
methods for manufacturing such members and for fabricating devices using such  
members are also provided.

170

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